CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.03/CSR/WBM-II/2015-16 Date: 24.02.2016

REPORT

Client	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Mr. C. Sambashivareddy,** No. 14, 14th Cross, Gopalappa Extension, Monrayanapalya, Bangalore.
Name of the Work	:	Improvements to roads and drains in Amba Bhavani Layout in Attur Ward No. 03, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	:	EE(YNK.D)/E-PMT-1/WO/08/2015-16 Dated: 24.02.2016
Type of Mix	:	Water Bound Macadam (Grade-II Metal)
Date of Testing	:	24.02.2016

1) SEIVE ANALYSIS :

IS Sieve designation Size, mm	Percentage Passing for Graded Aggregate of Nominal size	Percentage by Weight Passing as per MORTH table 400-7
90mm	100.00	100.00
63mm	95.25	90-100
53mm	41.50	25-75
45mm	11.75	0-15
22.4mm	2.10	0-5

Note:

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⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

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Pradeep AE

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B.N Pradeep

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24.02.2016

Aggregate Impact Value

IS: 2386 Part IV

Client	Asst. Executive Engineer, Yelahanka New Town Sub Division, BBMP,
Agency	Mr. C. Sambashivareddy, No. 14, 14th Cross, Gopalappa Extension, Monrayanapalya, Bangalore.
Name of the Work	Improvements to roads and drains in Amba Bhavani Layout in Attur Ward No. 03, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	EE(YNK.D)/E-PMT-1/WO/08/2015-16 Dated: 24.02.2016
Source / Location	WBM Mix Plant, Bangalore
Type of Mix	Water Bound Macadam
Date of Testing	24.02.2016

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	382	384	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	81	85	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	299	
4	Aggregate Impact value = percent fines	21.20	22.14	
	$100^* (W_2/W_1)\%$			21.67

Comments:

→ Maximum allowable Aggregate Impact value for Water Bound Macadam is 30%

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Proceed AE

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24.02.2016

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	**Mr. C. Sambashivareddy,** No. 14, 14th Cross, Gopalappa Extension, Monrayanapalya, Bangalore.
Name of Work	Improvements to roads and drains in Amba Bhavani Layout in Attur Ward No. 03, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	EE(YNK.D)/E-PMT-1/WO/08/2015-16 Dated: 24.02.2016
Technical Reference	IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	Water Bound Macadam (Grade-II Metal)
Date of Testing	24.02.2016

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Result : Flakiness Index = **11.53%**

Elongation Index = **13.24%**

Result : Combined Flakiness & Elongation index **24.77%**

Comments:

Maximum allowable Falakiness & Elongation Index for Water Bound Macadam is 30%

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Job No.: CTCE/BBMP/W.No.03/CSR/STEEL/2015-16 24.02.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Mr. C. Sambashivareddy,** No. 14, 14th Cross, Gopalappa Extension, Monrayanapalya, Bangalore.
Name of the work	:	Improvements to roads and drains in Amba Bhavani Layout in Attur Ward No. 03, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	:	EE(YNK.D)/E-PMT-1/WO/08/2015-16 Dated: 24.02.2016
Date of Test	:	24.02.2016
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	510	552	13.05	O.K	O.K

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Job No.: CTCE/BBMP/W.No.03/CSR/STEEL/2015-16 24.02.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Mr. C. Sambashivareddy,** No. 14, 14th Cross, Gopalappa Extension, Monrayanapalya, Bangalore.
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Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	12	0.89	515	558	13.35	O.K	O.K

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